

REMARKS

This Amendment responds to the Office Action mailed December 14, 2004. New claims 13-14 have been added. After entry of this Amendment, claims 1-14 are pending. Claims 1, 6, 7 and 10 have been amended. Claims 6 and 7 have been amended to recite a radiation receiving surface in place of screen, and these claim changes are not intended to be related to patentability or to narrow the claim scope. Claim 10 has been amended in conformity with claim 7. The indication of allowable subject matter in claims 9 and 10 is acknowledged with appreciation.

Objection to the Title

The Office Action contains an objection to the title as allegedly not being sufficiently descriptive. A new title has been proposed herein, and withdrawal of this objection is requested.

Art Rejections

The Office Action contains a rejection of claims 1-8 under 35 U.S.C. § 102(e) as allegedly being anticipated by the de Groot patent (U.S. Patent No. 6,359,692). This rejection is respectfully traversed.

Independent claim 6 recites a method for recording an interferogram wherein, among other things, the interferogram is generated by a weighted averaging over the different radiation frequencies of intensities of the plurality of interference patterns at respective positions of the interferogram.

In contrast, the de Groot patent does not disclose weighted averaging over different radiation frequencies of intensities of a plurality of interference patterns, as recited in claim 6, to generate an interferogram. Rather the de Groot patent discloses recording a optical interference image for each of multiple wavelengths (e.g., col. 2., lines 18-20), as opposed to recording an interferogram by weighted averaging over the multiple wavelengths. In fact, the de Groot patent discloses at col. 10, lines 40-44 the undesirability of integrating over multiple frequencies.

Also, the de Groot patent discloses extracting phases from an interference pattern selected from the above-noted images (e.g., col. 2, lines 23-30). The de Groot patent discloses a phase shifting interferometry (PSI) approach referred to as the “thirteen frame algorithm” (col. 8, lines 28-63) wherein data from such images (each pertaining to a given

wavelength) is entered into Equation 19 therein to generate a $\tan(\theta)$ distribution where for each spatial coordinate (x, y), θ is the phase determined by the PSI algorithm. The $\tan(\theta)$ distribution is plainly not an interferogram.

Accordingly, claim 6 is not anticipated by the de Groot patent for at least the above reasons, and withdrawal of the rejection is respectfully requested. Claims 1 and 7 are not anticipated by the de Groot for similar reasons, and withdrawal of the rejection against claims 1 and 7 is also respectfully requested. Claims 2-5 and 8 are allowable at least by virtue of dependency.

The Office Action contains a rejection of claims 11 and 12 under 35 U.S.C. § 103(a) as allegedly being unpatentable over the de Groot patent (U.S. Patent No. 6,359,692). This rejection is respectfully traversed. Claims 11 and 12 are allowable at least by virtue of dependency.

The Office Action contains an objection to claims 9 and 10 as being dependent upon a rejected base claim, but otherwise allowable. These claims are believed to be allowable in their present dependent forms in view of the discussion above.

New Claims

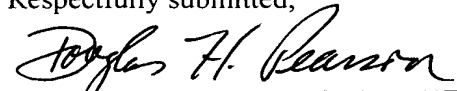
New claims 13 and 14 have been added herein, support for which may be found at least at page 8, lines 32-36. These claims are allowable at least by virtue of dependency.

Conclusion

In light of the above amendments and remarks, reconsideration and allowance of this application are respectfully requested. The Examiner is invited to call the undersigned attorney at 202-879-3939 if a telephone call could help resolve any remaining items.

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Respectfully submitted,



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